

REMARKS

Applicants have carefully considered the final Office Action dated October 4, 2004 regarding the above-identified application, and the claim amendments above together with the remarks that follow are presented in a bona fide effort to respond thereto and address all issues raised in that Action.

Entry of Amendments Under Rule 116

By the amendment above, claim 7 has been revised to eliminate indefiniteness, and claim 8 has been amended to conform to claim 7. The other pending claims, including the independent claims, remain unchanged. Hence, the amendments do not introduce any new matter and should not raise any concerns about the need for further search or consideration by the Examiner. The amendments obviate an indefiniteness rejection, as discussed below. Hence, even if other rejections are maintained, entry of the amendments reduces issues for purposes of Appeal. The amendments were not previously presented as the indefiniteness rejection first appeared in the final rejection; and before that rejection, Applicants believed that claim 7 was already definite. Entry of the amendments after final rejection, under Rule 116, therefore is proper. Prompt entry and reconsideration of this application are solicited.

Definiteness (Claims 7 and 8)

Claim 7 was rejected as indefinite, on the ground that the phrase “the display comprises a display” lacked antecedent basis. Claim 7 depends from claim 1, which recites that the clock includes “a display” (see lines 8-10). Claim 7 has been amended to state that “the display is installed on a dashboard.” The display term clearly finds antecedence in claim 1, and it is believed that the revised language is quite clear. Further dependent claim 8 has been revised to

conform to the latest version of intervening claim 7. It is respectfully submitted that claims 7 and 8 are definite, and the rejection of claim 7 should be withdrawn.

The Art Rejections

In the final Action, claims 1-4, 11, 12 and 20 were rejected under 35 U.S.C. § 103 as unpatentable over U.S. patent no. 6,671,291 to Soliman in combination with U.S. patent no. 6,553,228 to Kotzin. The Soliman patent discloses a technique for synchronizing system time and frequency at a 'child' base station to those of a 'parent' base station (abstract). At the child base station, a time/frequency transfer unit 13 receives signals from the parent base station and provides an absolute system time that is used for the reference time (column 4, lines 10-18) for the clock 30 in the child base station. The Soliman patent refers to the time/frequency transfer unit 13 as a "mobile station," although it is fixed and only receives and processes frequency and timing signals (column 4, lines 39-46). The Examiner cites Kotzin for a disclosure of a mobile station providing two-way voice communication and asserts that it would have been obvious to provide such communication in Soliman "so that the conversion[sic] between two users can be carried on properly."

Claim 5 stands rejected under 35 U.S.C. § 103 as unpatentable over Soliman in combination with U.S. patent no. 5,511,067 to Miller. The Examiner relies on Miller only for use of a sync message to acquire a paging channel.

Claims 6-8 stand rejected under 35 U.S.C. § 103 as unpatentable over the Soliman patent, alone. Here, the Examiner alleges that it would have been obvious to apply Soliman's system to set a clock in a car.

Patentability

The art rejections are respectfully traversed. Each rejection overlooks limitations of the rejected claims not disclosed by Soliman, and there is no showing that addition of secondary references would make up for these deficiencies of the base document applied in all three art rejections. Also, it is submitted that the proposed modifications would not have been obvious.

1. Relevant Legal Precedent

In rejecting claims as unpatentable under 35 U.S.C. § 103, it is incumbent upon the Examiner to factually support a conclusion of obviousness. *In re Mayne*, 104 F. 3d 1339, 41 USPQ2d 1451 (Fed. Cir. 1997); *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The PTO is charged with the initial burden of identifying a source in the applied prior art for: (1) claim features; and (2) the realistic requisite motivation for combining applied references to arrive at the claimed invention with a reasonable expectation of successfully achieving a specific benefit. *Smith Industries Medical Systems v. Vital Signs*, 183 F. 3d 1347, 51 USPQ2d 1415 (Fed. Cir. 1999).

First, this burden is not met if there is no showing that the combination of references would actually meet all the limitations of the properly construed claims under consideration.

Second, the Examiner also must provide a reason why one having ordinary skill in the art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. See also *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530 218 USPQ 871 (Fed. Cir. 1983); *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). What may or may not be known in general does not establish the requisite realistic motivation. *In re Deuel*, 51 F. 3d 1552 34

USPQ2d 1210 (Fed. Cir. 1995). The requisite motivation to support the ultimate legal conclusion of obviousness under 35 U.S.C. § 103 is not an abstract concept, but must stem from the applied prior art as a whole and have realistically impelled one having ordinary skill in the art to modify a reference in a specific manner to arrive at a specifically claimed invention with a reasonable expectation of achieving a specific benefit. *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989).

Hence, the burden is on the Office, and thus on the Examiner, to present clear factual evidence supporting all necessary elements of the prima facie case of obviousness. *See e.g. In re Lee*, 277 F. 3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002) (obvious determination vacated for lack of evidentiary support for conclusory statements regarding obviousness to select and combine); and *In re Zurko*, 258 F. 3d 1379, 59 USPQ2d 1693 (Fed. Cir. 2001) (deficiencies of the cited references cannot be remedied by general allegations of "basic knowledge" or common sense).

As will be discussed below, the art rejections set forth in the October 4, 2004 final Office Action do not present the requisite facts with regard to all claim elements or with regard to showing motivation to combine or modify in the manner proposed in the various rejections.

2. Unsatisfied Claim Limitations

There are numerous errors in the art rejections. Consider first several aspects of the various claims that the rejections do not accurately identify as actually disclosed in the patents applied in the art rejections.

The rejection of claim 1 refers at several points to a "Voltage control oscillator." It should be noted for the record that the independent claims recite an oscillator but do not require that the oscillator is necessarily voltage controlled. Statements regarding the oscillator, particularly on page 3 of the Action are contradictory and some are inaccurate. In the third

paragraph of that page, the rejection alleges that Soliman discloses “an adjustable resettable clock 30 ... including a Voltage control oscillator (oscillator) figure 3...” Fig. 3 of Soliman, however, discloses the components of the frequency synthesizer circuit 32 included in the time/frequency transfer unit 13a (column 6, lines 62-66). The illustrated circuit is not that of the clock 30. Also, the illustrated synthesizer circuit 32 essentially provides a down conversion of the pilot signal received in the time/frequency transfer unit 13a (column 7, lines 1-4). As such, the circuit of cited figure 3 is of no relevance to the resettable clock, or to an oscillator for such a clock that maintains time based on output of the oscillator, as clearly recited in each of independent claims 1 and 11.

The error regarding the oscillator is compounded later, in the paragraph starting at the bottom of page 3 and running to the top of page 4 of the final rejection). Here the Examiner acknowledges that “Soliman does not disclose a resettable[sic] including a Voltage control oscillator (oscillator) and a processor for maintaining a current time.” The rejection concludes, however, that such an arrangement of a clock would have been obvious because “Soliman discloses a system for adjusting clock time in a communication system including a Voltage control oscillator (oscillator) and a processor for maintaining a current time.” The cited statements are contradictory. The statement in the third paragraph of page 3 alleges that Soliman discloses a resettable clock including an oscillator, whereas the opening sentence of the last paragraph of page 3 admits that Soliman does not disclose such a resettable clock. Also, the circuit alleged to provide the oscillator (figure 2) is not that of the clock but part of the time/frequency transfer unit 13a (column 6, lines 62-66). The Examiner has not explained how such a disclosure of a time/frequency transfer unit teaches the claimed elements of the resettable clock.

The rejection of claim 11 points to figure 3 again for the disclosure of an oscillator in a resettable clock (see second and third paragraphs on page 5 of the Office Action). As noted above, the oscillator of figure 3 of Soliman is in the time/frequency transfer unit 13a (column 6, lines 62-66), not the clock 30. If the discussion of claim 11 is to stand on its own, it has not addressed the issues regarding the elements contained in the resettable clock, e.g. the oscillator and processor. If the discussion of claim 11 relies in whole or in part on the comments about the oscillator and processor made earlier with respect to claim 1, then the rejection of claim 11 incorporates the errors discussed above with regard to the oscillator.

In view of the above noted errors regarding the oscillator, in the discussions of claims 1 and 11, the art rejection of those claims over Soliman and Kotzin is improper and should be withdrawn. The further rejections of the dependent claims incorporate those deficiencies and should likewise be withdrawn.

The rejection of claim 1 overlooks the fact that the independent claim specifies a display (Office Action pages 2-4). Soliman does not disclose a display for the "clock" 30. For this additional reason, the rejection of claim 1 is incomplete and improper. The rejection of claim 11 acknowledges this deficiency of Soliman but concludes that addition of a display would have been obvious (Office Action page 5, 10th paragraph). It is submitted that addition of a display to the clock 30 of Soliman would not have been obvious. The clock 30 in Soliman is the internal clock of a base station. Although it might be obvious to add a display to a device intended to present time information to a user, as alleged in the rejection of claim 11, the base station of Soliman is not such a device. The base station of Soliman provides two way wireless communications to user terminal stations and appropriate interfaces to the landline portion of a network. The base station is not itself a user device. The admitted prior art knowledge of

resettable clocks, discussed in the background of this application, would provide a teaching of a display to a user. However, that prior art knowledge was not applied in the latest rejection. Also, such knowledge of displays on user clocks would not lead one of skill in the art to add a display to the clock 30 in the base station of Soliman. The Office Action did not identify an express teaching to provide such a display, in a context applicable to a base station. Absent some such teaching, the Examiner has failed to make a prima facie case to support the allegation that addition of a display to the base station clock of Soliman would have been obvious.

In view of the lack of a teaching with regard to the recited clock display, the rejection of claims 1 and 11 over Soliman and Kotzin is further improper and should be withdrawn. The further rejections of the dependent claims incorporate this additional deficiency and should likewise be withdrawn.

It is noted that claim 11 was included in the rejection over Soliman in view of Kotzin. Kotzin was cited against claim 1 for an alleged teaching to modify the time/frequency transfer unit 13 of Soliman (the alleged mobile station) so that the unit 13 would provide two-way voice telephone communications. Claim 1 recites a mobile station that provides two-way voice telephone communications. Claim 11, directed to the clock itself, does not recite a mobile station. Claim 11 only specifies that the interface is for coupling the processor of the clock to a CDMA network compatible receiver. There is no explanation in the rejection of what if anything Kotzin adds that purports to render any of claim 11 obvious, in the legal sense under 35 U.S.C. § 103.

As another example of factual error with respect to claim elements, claim 5 was rejected as obvious over Soliman in combination with Miller; and claims 6-8 were rejected as obvious over Soliman alone. In the rejection of claim 1, the Examiner acknowledged that Soliman did

not teach two-way voice communication through a mobile telephone implementation of the time/frequency transfer unit and applied Kotzin for an alleged teaching of this feature. Claim 5 as well as claims 6-8 depend from claim 1 and incorporate the recitation of a mobile station providing two-way voice telephone communications from parent claim 1. The rejections of claims 5-8 did not apply Kotzin. By the Examiner's own admission, Soliman does not teach this feature, and the rejections of claims 5-8 do not even allege that this feature of the mobile station would have been obvious over Soliman alone or over Soliman in combination with Miller. Absent a showing of obviousness of this feature, the rejections of claims 5-8 do not show the claimed inventions as a whole would have been obvious, and therefore those rejections are improper and should be immediately withdrawn.

In view of the errors noted above, it is respectfully submitted that none of the combinations or modifications proposed in the art rejection would in fact satisfy all of the limitations of any of the rejected claims. Hence, the Examiner has not made out a prima facie case of obviousness of the claims as a whole, over the cited documents; and the art rejections all are improper and should be withdrawn.

3. Unobvious to Modify or Combine

There are several allegations of obviousness in the Action that are particularly significant with respect to patentability of the rejected claims. As discussed above, the rejection of claim 1 alleges that it would have been obvious to modify the time/frequency transfer unit 13 of Soliman (the alleged mobile station) so that the unit 13 would provide two-way voice telephone communications as in Kotzin. The rejection of claim 11 alleges that addition of a display to the clock 30 of Soliman would have been obvious. Although the addition of a display was not mentioned in the rejection of claim 1, it is noted that claim 1 includes a display in the clock, so

that the obviousness allegation regarding the display may also have been intended to apply to claim 1. To adequately support these allegations of obviousness under the law would require a showing of some reasonable motivation that would lead one skilled in the art to modify the system of Soliman as proposed. As discussed below, there is no such motivation on either point.

As to the first point, the modified element in Soliman is the time/frequency transfer unit 13. The unit 13 provides time and frequency reference data to a base station. The proposed modification apparently would convert the unit 13 into a mobile station providing two-way voice telephone communication, purportedly “so that the conversion[sic] between two users can be carried on properly.” The time/frequency transfer unit 13 of Soliman does not provide communications between two users and there would be no reason to modify it to provide such communications. To the contrary, the sole purpose of the time/frequency transfer unit 13 is to provide the time and frequency reference data to the base station. Unless the Examiner intends to completely destroy the purpose and functionality disclosed by the base document of Soliman, which would also be improper under the relevant law, the unit 13 would continue to provide only the time and frequency reference data to the base station. If such a use continues, there is no reason to add voice telephone capabilities as alleged, except in a hindsight attempt to reconstruct a portion of Applicants’ claim 1. It is submitted that this is insufficient to provide a motivation to a person of skill in the art to lead that person to so modify the time/frequency transfer unit 13 in Soliman.

As to the modification of Soliman to add a display to the clock, it should be noted that the clock 30 of Soliman is the system clock of the base station 16. The base station provides CDMA (IS-95) communications for mobile stations, and the Soliman patent indicates that synchronization provides “improved system acquisition, simplified mobile station searching,

improved handoff reliability, improved handset standby time, and facilitated location and position searching” (column 1, lines 15-21). The clock, and Soliman’s resetting unit, provide the desired system synchronization. They do not provide time information to a person at or viewing the base station. In normal operation, a cellular base station runs autonomously, without manual interaction by a technician and certainly without direct use or observance by a typical ‘user’ of a clock or a mobile station. Addition of a display would add little or no value to the base station of Soliman. The Examiner alleges that it would have been obvious to add a display to the clock 30 in the base station of Soliman, “to have the feature of display time on the clock to the user so that the user can know what time is it.” The base station clock of Soliman, however, does not normally interact with a user who would view the clock of the base station. Normal operations of the clock 30 of the base station of Soliman involve over the air communications with mobile stations while maintaining the desired synchronism. During normal autonomous operation, there would be no user at the base station to view the clock display even if one were added. Hence, the alleged motivation is at best speculative and unrealistic. It is submitted that the only real motivation is to enable the Examiner to reconstruct the display requirements of claims 1 and 11 using hindsight and Applicants’ claims as a roadmap. Under the relevant legal precedent, this is insufficient to provide a motivation to a person of skill in the art to lead that person to so modify the base station clock 30 in Soliman.

It is noted also that the Examiner has not pointed out where any of the applied patents actually provide the stated motivations, either with regard to the modification of the time/frequency transfer unit 13 to provide two-way voice telephone communications or with regard to the addition of a display to the base station clock 30. In both instances, the Examiner has posited a motivation, without expressly identifying where the art actually teaches or suggests

such a motivation that would be relevant to the base station of Soliman. Mere disclosure of a voice telephone implementation of a mobile station (Kotzin) or general knowledge of clock displays is not enough. As noted in the discussion of the relevant legal precedent, above, deficiencies of the cited references cannot be remedied by general allegations of basic knowledge or common sense. The requisite motivation to support the conclusion of obviousness must stem from the applied prior art as a whole and have realistically impelled one having ordinary skill in the art to modify a reference, in this case, the basic document by Soliman, in a specific manner to arrive at a specifically claimed invention. If the evidence exists, the Examiner must cite and apply it, both to allow Applicants a full opportunity to respond and to provide a complete record on the issues if the matter should go to Appeal. Absent a showing that each motive would have been apparent to one familiar with the relevant art, as in the case of the October 4, 2004 final rejection in this application, the rejections for obviousness can not be sustained.

For these additional reasons relating to lack of motivation, the art rejections based on modifications of Soliman, with respect to independent claim 1 and 11, are improper and should be withdrawn. Withdrawal of rejections with regard to the independent claims should also overcome the rejections with regard to the dependent claims.

The rejection of claims 6-8 presents another example of the lack of a showing of a motivation to modify the base Soliman document to actually meet the claim limitations. In that rejection, the Examiner alleges that it would have been obvious to apply Soliman's system to set a clock in a car. This modification amounts to moving the base station clock 30 of Soliman to a car. The alleged motivation is to "achieve a potential profit in the automotive industry when marketing the adjustable clock of Soliman[sic] attached to a car." However, the Examiner

identifies no teaching on point or explains how one of skill in the art would be aware of this motivation from simply reading the Soliman patent. And to the contrary, the Soliman patent itself pointedly focuses on maintaining synchronism through clock control of network base stations. Taking the clock out of the base station and placing it in a car, as apparently proposed, would actually destroy the desired synchronization function of that clock and its reset capabilities. A motivation to modify is singularly unpersuasive when, as here, the motivation would lead one to destroy the principle function of the base reference. Taken another way, Soliman itself may be viewed as a teaching away (counter motivation) from the proposed modification. Specifically, Soliman teaches implementation of the clock at a fixed location, i.e. in a base station, instead of in a station that is moveable, such as in a car. Where there is a teaching away from the proposed modification, that teaching tends to negate any allegation of motivation to modify. For these additional reasons, the rejection of claims 6-8 fails to identify a valid reason for so modifying Soliman, that is to say a reason to place Soliman's disclosure of setting the base station clock in the context of a clock in a car. Claims 6-8 therefore should be patentable for this additional reason.

Conclusions

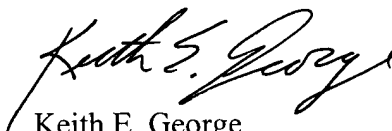
Upon entry of the above claim amendments, claims 1-8, 11, 12 and 20 should be active in this application, and all of those should be in condition for allowance. Accordingly, this case should now be ready to pass to issue; and Applicants respectfully request a prompt favorable reconsideration of this matter.

It is believed that this response addresses all issues raised in the latest Action. However, if any further issue should arise that may be addressed in an interview or in an Examiner's amendment, it is requested that the Examiner telephone Applicant's representative at the number shown below.

To the extent necessary, if any, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

A handwritten signature in black ink, appearing to read "Keith E. George", is written over the printed name.

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